

**IN THE UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS**

INTELLECTUAL VENTURES I,
LLC; INTELLECTUAL VENTURES
II, LLC,

Plaintiffs,

v.

LENOVO GROUP LTD., LENOVO
(UNITED STATES) INC.,
LENOVOEMC
PRODUCTS USA, LLC, EMC
CORPORATION, AND NETAPP,
INC.

Defendants.

C.A. No. 1:16-cv-10860-PBS
LEAD CASE

PLAINTIFFS' SUPPLEMENTAL CLAIM CONSTRUCTION BRIEF

I. INTRODUCTION

Pursuant to the Court’s April 24, 2019 Order, Plaintiffs Intellectual Ventures I, LLC and Intellectual Ventures II, LLC (collectively, “IV”) submit this supplemental brief in support of IV’s proposed construction for the phrase “storage drive” in the disputed term “detecting a storage device within a storage drive” in U.S. Patent No. 6,968,459 (“the ’459 Patent”). In addition to the intrinsic record, IV’s proposed construction is supported by computer dictionary definitions and should be adopted over that proposed by Defendants EMC Corporation, Lenovo (United States) Inc., LenovoEMC, Products, USA, LLC, and NetApp, Inc. (collectively, “Defendants”).

II. “detecting a storage device within a storage drive” (claims 15, 18)

IV’s Proposed Construction	Defendants’ Proposed Construction
<p>Detecting the presence of a storage device within a storage drive.</p> <ul style="list-style-type: none"> • “storage device” – a device capable of storing computer data. • “storage drive” – hardware and software used to host and represent a storage device in a computer or computer system. 	<p>Determining that a removable storage device, such as a floppy diskette, has been inserted into a storage drive.</p> <ul style="list-style-type: none"> • “storage device” – a device having a storage medium for holding digital information • “storage drive” – a device suitable for servicing access requests for the storage device

The core of Defendants’ argument for their proposed construction of “storage drive” is that it must be a physical drive for a removable storage device. But there is no such limitation to the term “storage drive” as it is used in the claims and

specification of the '459 patent. *See* Dkt. 233 at 5-8; Dkt. 241 at 1-5. Rather, the '459 patent contemplates “various storage drives.” '459 patent at 3:5-8. And without a clear and unmistakable disclaimer, “storage drive” cannot be limited to only physical drives. *See Thorner v. Sony Computer Entm't Am. LLC*, 669 F.3d 1362, 1366-67 (Fed. Cir. 2012) (“To constitute disclaimer, there must be a clear and unmistakable disclaimer.”); *Avid Tech., Inc. v. Harmonic, Inc.*, 812 F.3d 1040, 1045-46 (Fed. Cir. 2016).

Although relevant technical dictionaries at the time of the invention do not define “storage drive,” they make clear that there are various kinds of drives as that term is used in relation to storage in both physical and non-physical forms. For example, the second edition of *The Computer Desktop Encyclopedia*¹, published in 1999, provides the following definitions:

- “**logical drive**” is defined as “[a]n allocated part of a physical disk drive that is designated and managed as an independent unit. For example, drives C:, D:, and E: could represent three physical drives or one physical drive partitioned into three logical drives. Contrast with *physical drive*.” Ex. 1, *The Computer Desktop Encyclopedia*, at 524 (2d. ed. 1999) (italics in original).
- “**physical drive**” is defined as “[r]efers to the actual unit of hardware of a disk or tape drive. Contrast with *logical drive*.” *Id.* at 698 (italics in original).
- “**C:**” is defined as “[t]he designation for the primary hard disk in a PC.” *Id.* at 99.

¹ *The Computer Desktop Encyclopedia* did not contain a definition for “storage drive.”

- “**A:**” is defined as “[t]he designation for the first floppy disk drive in a PC. In PCs that have two floppy drives, the 3.5” drive is typically A:, and the 5.25” drive is B:.” *Id.* at 1.

Similarly, *Computer & Internet Dictionary*², published in 1995, defines “**logical drives**” as “sections of a *hard drive* that are formatted and assigned a drive letter, each of which is presented to the user as though it were a separate drive. Ex. 2, at Another way logical drives are created is by substituting a drive letter for a directory. Also, *networks* typically map directories to drive letters, resulting in logical drives. See *logical*, *partition*, and *physical drive*.” Ex. 2, *Que’s Computer & Internet Dictionary*, at 301 (6th ed. 1995) (italics in original).

That a “storage drive” could refer to a logical or a physical drive is also consistent with the “within” claim language, “detecting a storage device *within* a storage drive.” As it is used in the ’459 patent claims and specification, and consistent with the dictionary definitions discussed above, “a storage device within a storage drive” can mean either that a storage device is physically located in a physical [storage] drive, or that a storage device is connected into (i.e., within) a logical [storage] drive designation (e.g., to the C:, D:, or E: drive designations). In other words, a storage device can be “within” a logical drive so far as it is connected

² The *Computer & Internet Dictionary* did not contain a definition for “storage drive.”

to and represented by that logical designation, or a storage device can be physically located within a physical drive. IV's proposed construction is consistent with both logical and physical drives, as it must be since neither is disclaimed by the '459 patent. IV's construction of the hardware and/or software that is "used to host and represent a storage device in a computer or computer system" avoids excluding whole categories of drives and storage devices as Defendants attempt. Defendants' proposed construction improperly applies only to a physical drive and seeks to exclude the types of drives within which the various storage devices disclosed in the specification (like a hard disk) could be found. But Defendants fail to identify any language that would constitute a disclaimer.

Technical dictionaries at the time of the invention of the '459 patent show that a "storage drive" could refer to either a physical or a logical drive. Since nothing in the patent claims excludes logical drives, and since Defendants cannot show a clear and unmistakable disclaimer of any particular type of drive, the construction of "storage drives" cannot be limited to just one example (and exclude, for example, logical drives). *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1313; *Thorner*, 669 F.3d at 1366-67. IV's proposed construction captures both concepts of logical and physical drives such that it is the hardware and/or software that is "used to host and represent a storage device in a computer or computer system." By contrast,

Defendants' proposed construction improperly applies only to a physical drive. Accordingly, IV's proposed construction should be adopted.

III. CONCLUSION

For the foregoing reasons, IV's proposed construction should be adopted.

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INTELLECTUAL VENTURES I, LLC and
INTELLECTUAL VENTURES II, LLC,
By their attorneys,

/s/ Brian Ledahl

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/s/ *Brian Ledahl*

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